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Distance education as a response to pandemics: Coronavirus and Arab culture

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ABSTRACT

Some countries have replaced face-to-face education with distance education in response to the coronavirus. This form of distance education differs from conventional distance education: being suddenly, unready and forcefully implemented, invading schooling and constituting a globally discussed phenomenon. This article builds a conceptual framework for this education, addressing the question: What are the ramifications of implementing distance education amid coronavirus? It targets Arab culture, although globalisation and the media may have harmonised any substantial cross-cultural variations. Various ramifications have emerged through analysing social-media posts, online classes and interviews. Concerning social and cultural ramifications, some may, for ideological considerations, tolerate, support, reject or subvert this education through campaigning, rumour and humour. Regarding pedagogical and psychological ramifications, unreadiness and incompetence may compromise education. Additionally, staying home may entail problems (pandemic-related stress, anxiety, depression, domestic violence, divorce and pregnancy), preventing students and teachers from learning and teaching. Concerning procedural and logistical ramifications, some Arab contexts may be digitally readier than non-Arab contexts. Additionally, stakeholders may intensify efforts to profit, ethically or unethically, from the over-demand for this education. Distance education is one of several social distancing initiatives, which Arabs have welcomed despite their well-rooted social closeness, bonding to debond, forming unorthodox 'distanceship'.

1. Introduction

In the fight against the outbreak of the 2019 novel coronavirus disease (COVID-19), countries have replaced traditional close education with distance education as a defensive tool. Although many countries have been previously exposed to natural and human-made disasters, distance education has not been used as a solution to those crises in the same way it has been applied in the wake of the coronavirus crisis. Crisis distance education (CDE) is unique in its philosophies and procedures, being fundamentally different from typical distance education in several ways.

The first difference is its suddenness. CDE has been employed in schools out of an unforeseen need, with neither prior regulations nor preparation. It has been 'pushed' [1]: 11) into society without the necessary skills and knowledge. It has been rushed in to save the classroom and get educational institutions back on their feet. It is an exception that needs to 'be the norm over a short period of time' [2]: 1).

The second difference is internationalisation. CDE has been applied as a non-pharmaceutical intervention across the world, forming a global reality and turning instruction into a worldwide spectacle. It has been set as a generic, universal resolution, blind and deaf to local requirements. Whereas in the past, it was an institutional concern, it is now an international concern. Prior efforts have been put into the institutionalisation of distance education, but now, the efforts have gone further and focused on internationalisation. In fact, its internationalisation is transpiring almost effortlessly beyond social control, as if it has a life on its own above human will.

The third is its popularity. It has become a common interest across societies, dominating the public sphere. Conversations about it have rapidly scaled up. *Google Trends* demonstrates that the search frequency for the phrase 'distance education' has multiplied dozens of times in the aftermath of the coronavirus crisis. This phrase (and its accompanying terms and concepts) are being normalised in communities and homes, governing formal, informal, online and offline platforms. As the Arabs

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say, 'wickedness may come with good', meaning that widespread distance education may be a 'good' outcome of 'wickedness' (i.e. coronavirus).

The fourth is its expansion. It has exceeded its normal zone (i.e. academia) to reach out to schooling. Distance education is not new for higher education, but what is notable is its introduction into schools, especially primary ones. In this time, distance education has become an instructional means for all different age cohorts, from kindergarten to doctoral levels.

The fifth is its imposition. In many countries, CDE has been imposed as a national, top-down 'draconian measure' [2]: 1). This imposition has taken place with neither voting nor any form of democratic decision-making, even in regions wherein democracy is a deep-seated norm. Whereas distance education was previously a luxury, it is currently represented as a necessity in the face of coronavirus. The use of distance education has shifted from being 'good-to-have' to 'mission-critical' [3]. It has been enforced as a primary device for the completion of individuals' educational journeys.

The sixth difference is medical emergencies. Whereas distance education is often touted for reasons such as geographical isolation, disability and wars, it is now being used as a tool for dealing with a medical tragedy. It has been portrayed by the media as almost the sole means to aid schooling while escaping the claws of coronavirus.

More differences are displayed in Table 1, presenting a disruptive episode in which traditional distance education has been turned 'on its head' [34]: 371). This table shows how the detection of COVID-19 has ruptured normal practices and 'disturbed the regular education pattern' [2]: 1). During the epidemic, 'the things we all took for granted [are] no longer an option' [35]: 1). Education is encountering 'the greatest disruption' [31]: 1), marking 'a radical departure' [36]: 245) from historical modes of delivery. Coronavirus is unmasking a fundamentally original 'face of education' [37]: 48), occasioning 'an inflection point' [38]: 419) for conventional distance education. Other differences between traditional distance education and CDE exist, but human society has not realised them thus far. Only time can reveal more differences, as noticed by Luyben et al. [22].

A crucial limitation in most existing writings on CDE is that they study it simply as if it is akin to traditional distance education, failing to recognise the pandemic as an essential variable and run a comparison between traditional distance education and CDE [29]. CDE cannot be claimed to be the same as the conventional distance education from which previous studies draw their findings. It requires tailored studies that entail novel theoretical, conceptual and methodological frameworks. In compliance with this assumed requirement, the present study has been conducted to theoretically frame the implementation of distance education to mitigate a long-term and large-scale cancellation of face-to-face education. It is unlike other works in miscellaneous ways, as laid out in Table 2.

2. Methodology

The educational system has been solid throughout history, continuously functioning in defiance of wars, epidemics, economic hardships and geographical burdens. What is arising now underpins this claim, as this system is considering roundabout ways to ensure its continuity during the coronavirus plague. The system does not normally tolerate its discontinuity and abolition, and the tolerance takes place within the sphere of searching for substitutes. The substitute considered now is distance education, which is the focus of the present research. This research hopes to make various contributions to the field of technology in society. The first is through drawing a comparison between traditional distance education and CDE. The second is by formulating a conceptual framework for CDE. The third is by means of undertaking a critical approach to CDE. The fourth is through qualitatively scrutinising CDE. The fifth is by viewing CDE through sociological lenses. The last contribution comes through documenting Arabs' views of (and dealings

Table 1

Differences between pandemic and typical distance education.

Theme	Criteria	Available in Traditional Distance Education?	Available in Pandemic-Related Distance Education?	Supporting References
Agreement	It is agreed upon by all parties (the institution, teacher and learner)	✓	×	[4]
Means	It can involve both online and offline communication, not exclusively online	✓	×	[5]
Choice	One has an option, to enrol for face-to-face or distance education	✓	×	[6]
Alternative	It replaces and eliminates face-to-face education	×	✓	[7]
Time	It must be full-time at the school level	×	✓	[8]
Major	It involves all science and social science degrees	×	✓	[9]
Course	It involves more types of courses: theoretical, practical, etc.	×	✓	[10]
Needs	It includes those with special needs	✓	×	[11]
Psychology	One is previously prepared psychologically	✓	×	[12]
Quantity	Globally, the number of enrolled students is exceptional	×	✓	[13]
The media	It has a great media presence	×	✓	[14]
Technicians	Technicians have a unique societal value; considered 'enterprise rescuers'	×	✓	[14]
Fee	Education that is free offline remains free when going online	×	✓	[15]
Readiness	Institutions (and states) adopt it, regardless of readiness	×	✓	[16]
Care	Learners are more serious and interested	✓	×	[17]
Sponsorship	It can be well sponsored by governments	✓	×	[15]
Age Cohort	It is restricted to university levels and, thus, to certain ages	✓	×	[18]
Parents	Students seek help from or depend on parents, who have direct roles	×	✓	[19]
Scarcity	It is a temporary solution and takes place only for a short time	×	✓	[11]
Discourse		×	✓	[20]

(continued on next page)

Table 1 (continued)

Theme	Criteria	Available in Traditional Distance Education?	Available in Pandemic-Related Distance Education?	Supporting References
Family	It occupies people's conversations, including the youth Families are engaged in the education in which their children are enrolled	×	✓	[21]
Admin	One enrolls while being aware of the decision	✓	×	[8]
Beforehand	Learners know how assessment and examination will take place	✓	×	[22]
Gender	Women may not be allowed to teach online	✓	×	[15]
Logistics	One's enrolment is consistent with one's financial budget (e.g. computers)	✓	×	[23]
Preparation	Students, teachers and administrators are (e.g. pedagogically) prepared	✓	×	[24]
Social Class	It is open to the various social groups	×	✓	[25]
Plan	It is pre-planned	✓	×	[26]
System	It is a comprehensive system, from objectives to examination methods	✓	×	[21]
Infrastructure	It entails an administrative and technical infrastructure	✓	×	[27]
Defence	It involves a defensive, responsive, protective system	×	✓	[7]
Research	It is well studied	✓	×	[28]
Exam	Exams can be face-to-face	✓	×	[29]
Curricula	Curricula are initially designed to be delivered online	✓	×	[22]
Instruction	It achieves the minimum level of instruction	×	✓	[30]
Priority	It has priority over face-to-face education	×	✓	[31]
Politics	It is politicised and carries political intentions	×	✓	[32]
Methods	Teaching means and methods are limited	×	✓	[33]
Pressure	Administrative and	×	✓	[5]

Table 1 (continued)

Theme	Criteria	Available in Traditional Distance Education?	Available in Pandemic-Related Distance Education?	Supporting References
F-2-F Meeting	organisational decisions are made under pressure One can physically meet one's teacher if desired	✓	×	[33]

with) CDE.

World countries have not worked together on how to implement distance education, resulting in potential local differences in implementation. Hence, this study focused on Arab countries. It was carried out in the first half of 2020 during the coronavirus epoch and sought to single out the implications of employing distance education to go around the contingency in Arab settings. To establish its initial parameters, a pilot pre-study was conducted by visiting three Arab organisations concerned with digitally delivered instruction. Their members were invited to share their thoughts and reflections on the enforcement of distance education. Many of them appeared to be in a state of shock by the 'fast and dramatic shift to distance education' (as one put it). Some saw themselves at odds with the rapid implementation, feeling harried, with too little time for proper reflection upon the ramifications of encounters. Accordingly, the current article sheds light on these ramifications by analysing data collected through four methods. The first was the observation of 14 1-h CDE classes in five Arab establishments (two schools and three universities). The second was the analysis of 1393 Arab social-media posts. The third was the performance of a 1-h online focus-group interview with 12 participants, and the fourth entailed 15-min unstructured online individual interviews with 38 participants.

Twitter was chosen as the template for collecting social-media posts. This choice was informed by the authors' observation that this platform was where Arabs were most actively conversing about coronavirus-related distance education. Twitter's search bar was used to look up relevant keywords (e.g. corona education, distance education and pandemic and school closure) and hashtags (e.g. #corona_education and #corona_distance_education). The search activity lasted almost two weeks, collecting 30 tweets, three times a day (11 a.m., 5 p.m. and 10 p.m.). Retweets, repeated tweets and spams were excluded from the counted 30 tweets a day. Tweets were collected until at least 50 posts were collected within each of the criteria items set out in Table 3 to achieve 'maximum variation sampling'. That is, when at least 50 tweets per item had been reached, data collection stopped because the criteria items were repetitively reaching the critical threshold of 50 posts.

Interview and focus-group participants were reached using 'snowball sampling', whereby participants suggested other participants. This technique enabled the intentional selection of participants who would fit many of the criteria items shown in Table 4 in an effort to accomplish 'maximum variation sampling'. More individuals were invited for interviews until at least one person was acquired within each of these items. That is, when at least one person per item had been reached, data collection stopped because the criteria items were repetitively reaching the critical threshold of one person. Through 'maximum variation sampling', this study sought to explore the 'diversity of perspectives necessary to understand fully the COVID-19 pandemic as it unfolds' [50]: 3).

Numerous open-ended questions were directed to interview and focus-group participants. The first pertained to comparison ('Which one would you prefer: coronavirus distance or face-to-face education? Is there another method of education you would prefer? Have you had any

Table 2

Comparison between the current work and former works.

Traits of the Current Paper	[24]	[39]	[40]	[26]	[21]	[41]	[10]	[42]	[43]	[44]	[45]	[46]	[47]	[48]	[49]
It is not a technical paper	✓	✓	✓	✓	✓	✓	×	×	×	×	×	×	×	×	×
It is developed (>4000 words)	×	✓	×	✓	✓	×	✓	✓	×	✓	×	×	×	×	×
It undertakes a critical approach	✓	×	×	✓	×	✓	×	×	✓	×	×	×	×	×	×
It is not report-like	×	✓	✓	✓	✓	✓	✓	×	×	×	×	✓	×	×	×
It entails empirically collected data	✓	✓	✓	×	✓	×	✓	✓	×	×	×	×	×	×	×
It is not merely passively descriptive	×	×	×	✓	×	✓	✓	×	×	✓	×	×	×	×	×
It is not essentially directive	✓	✓	✓	×	×	×	×	×	×	×	✓	×	✓	×	×
It addresses school and academia	✓	✓	×	✓	×	✓	×	✓	×	×	×	×	×	×	×
It is informed by the affected	✓	✓	✓	×	✓	×	✓	✓	×	×	×	×	×	×	×
It is qualitative research	✓	×	✓	×	×	×	×	×	×	×	×	×	×	×	×
It is not interventionist	×	✓	✓	×	×	×	×	×	✓	×	✓	×	×	×	×
It consists of interviews	✓	×	✓	×	×	×	×	×	×	×	×	×	×	×	×
It focuses on the Arab domain	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×
It is profoundly sociologically oriented	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	×
It establishes a conceptual framework	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
It mainly unearths ramifications	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

Table 3

Criteria for identifying social-media posts.

Criteria	Knowing the Criteria Through	Items
Gender	Users' name, bio, photo and/or tweets	Female, male
Language	Users' tweets	Arabic
Country	Users' location, bio, photo and/or tweets	UAE, Sudan, Saudi Arabia, Jordan, Egypt, Kuwait
Qualification	Users' name, bio, photo and/or tweets	Bachelor's, master's, PhD
Background	Users' name, bio, photo and/or tweets	Urban, rural, Bedouin
Role	Users' bio, photo and/or tweets	Parent, student, teacher, manager, decision-maker, company
Opinion	Users' tweets	Supportive, opposing, neutral, serious, comic, extreme, negative, positive
Expression	Users' tweets	Image, text, link, video
Tweet Time	Tweets' time	Morning, afternoon, evening

Table 4

Criteria for selecting interview and focus-group participants.

Criteria	Items
Gender	Female, male
Language	Arabic
Country	UAE, Sudan, Saudi Arabia, Jordan, Egypt, Kuwait
Sector	Public, private sector
Edu Level	Primary, high school, undergraduate, postgraduate
Background	Urban, rural, Bedouin
Role	Parent, student, teacher, manager, decision-maker, expert in technology in society
Profession	School, academia
Experience	1–5, 6–10, more than 10

experience with traditional distance education? What makes it different from corona distance education?'). The second related to evaluation ('From your perspective, what are the pros and cons of corona distance education?'). The third regarded relationships ('How would you describe your relationship with your siblings, parents, peers, friends, teachers and or children when it comes to corona distance education?'). The fourth relied on role-playing ('From your perspective, who is benefiting and losing from corona distance education?'). The fifth pertained to effects ('Have your educational and social lives been positively or negatively affected by corona distance education? In what ways?'). The sixth touched upon challenges ('Are there challenges that have hindered you from coronavirus distance education? What are they? Have you overcome them? How?'). The seventh concerned suggestions ('Do you have suggestions to make corona distance education more

effective?'). The eighth was pertinent to predictions ('From your own perspective, how would education look like after corona?').

The researchers sought abstractions within the data, using mind-mapping software (Ayoa). That is, each relevant social-media post, interview statement or report sentence was given a mark (i.e. one word) that reflected its essential meaning. After that, marks of the same type were assembled into what could be called 'micro visions'. That is, these marks were gathered to form initial visions and early steps towards the overall sense-making of the data. Micro visions of the same kind were then mind-mapped into 'meso visions'. Expressed differently, micro visions were joined to constitute medium, clearer visions and take moderate steps towards making sense of the data. Last, meso visions were combined into an overall 'macro vision'. That is, meso visions were put together to establish a comprehensive vision, acting as the final step towards making sense of the data, generating a notional framework (i.e. ramifications of CDE). This thematical process is illustrated in Fig. 1.

The decisions on marks and micro, meso and macro visions were based on three criteria. First, the authors voted among themselves over the selection, relying on both their subjective reasoning and their reading of the existing literature. The second was the execution of triangulation and cross-referencing within and across the data sources. Third, a colleague was invited to act as an external audit. He checked that every mark reflected the essential meaning. He also substantiated that the transitions from marks to micro, meso and macro visions added up, made a reasonable flow and formed a sensible storyline. In the subsequent Findings section, a bracket (composed of a letter and a number) is inserted at the end of each finding statement. The letters are I (interview), M (social-media messages) and R (reports). Regarding the numbers, each number signifies the finding's line number in the transcribed dataset. To illustrate, when displaying a finding followed by (I12), this means that the source of the finding is 'interview', and its line number in the database is 12.

3. Findings

After analysing the data, three sets (meso visions) of ramifications were unearthed: social and cultural, pedagogical and psychological, and procedural and logistical.

3.1. Social and cultural ramifications (Meso Vision)

This meso vision entails two micro visions: society and culture.

• Society (Micro Vision)

The 'society' micro vision consists of two marks: acceptance and opposition. **Mark 1** (acceptance) hosts a couple of issues. The first is

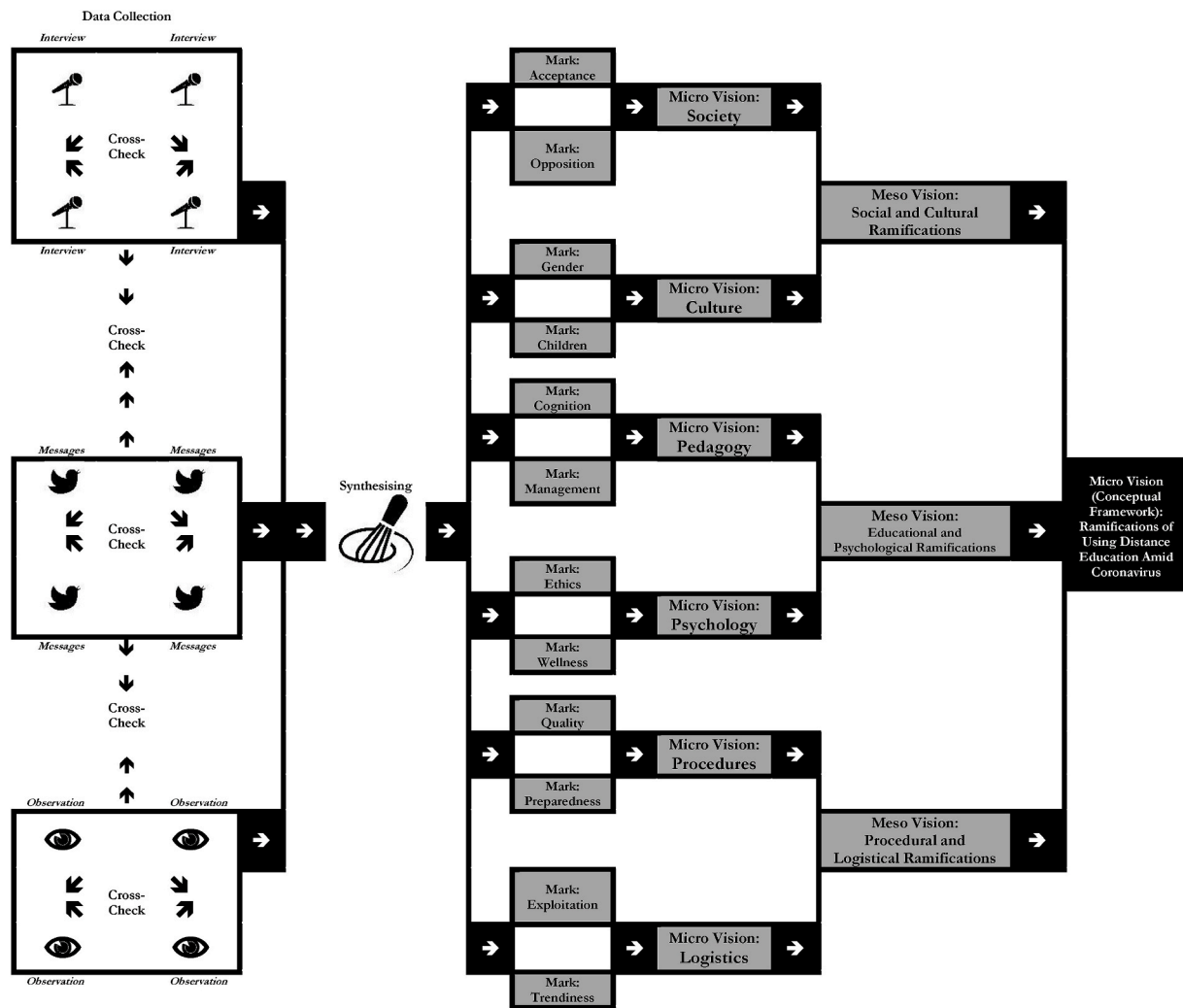


Fig. 1. Data collection and analysis.

curiosity. Some students were, as observed in the CDE classes, willing to go through the CDE experience out of curiosity, 'trying something new' (M525). The second is positivity. Some interviewees commended the operation of CDE, seeing it as an attempt to turn threats into potential opportunities. The third is ideologies. Some held the belief that coronavirus (and, consequently, CDE) 'locks us in homes in order to devote ourselves to worship' (M629). Moreover, they resorted to traditional remedies and prayer to protect themselves against the virus.

The fourth issue is reassurance. Some reassured themselves by citing several common ideologies. One ideology is 'What one hates [here, coronavirus] may turn out to be good for one in the end' (M74). Another ideology is that 'benefit comes out of harm' (M636). In the spirit of these ideologies, some participants appeared certain about the existence of divine wisdom behind the emergence of such a virus. The fifth is surrender. Some made the argument that humans should take no action (for instance, stopping in-person education) and submit. They referred to the belief that 'one will not die before the time when one is supposed to die' (M141). Another belief was that 'one will face one's destiny, irrespective of how cautious one is' (M611). The sixth issue is inconsistency. Distance education in some Arab regions was at first resisted, then incorporated lightly, then welcomed as a requirement for the trendy concept of quality assurance. Now, unexpectedly, it has become obligatory due to the outbreak.

Under **Mark 2** (opposition) are a few matters. The first is a sense of being overwhelmed. It seems from the observation of CDE classes that the 'abrupt migration to online learning' [51] has engendered a deep

sense of urgency, emergency and stress among managers and teachers, dramatically increasing their workload, destabilising their psychological state and 'making their mind stop functioning and freeze' (M45). Some educators complained that the preparation for technologically presented teaching classes requires more determination than in-person education, saying, 'the effort of one class in distance education equals the effort of six classes in traditional face-to-face education' (I21).

The second matter is protesting. Hashtag-driven campaigning is one of the widespread methods through which some Arabs have demanded the cancellation of distance teaching. The third is humour. Satirical and deriding texts and videos are shared online as a form of resistance to CDE. One tweet sarcastically suggested the cancellation of CDE based on the fear that 'coronavirus may infiltrate into the Internet and then into students' (M535). Such a sarcastic sense reflects the nature of some Arab cultures, whereby members tend to 'respond to crises by ridiculing new behaviours, thoughts, ideas and initiatives' (I42). The fourth is rumours. Rumours and 'counterknowledge' [52] are utilised as a way of resisting CDE and exerting societal pressure over authorities. In one Arab country, authorities sent a text to citizens' mobile phones, warning them that 'rumours present a greater danger than the spread of coronavirus itself, spreading unjustified horror among citizens' (M230).

The fifth is a lack of seriousness. CDE has not been taken seriously by some students, parents and teaching staff, who have undertaken reduced engagement with it or regarded it as simply 'vacation, rest, recreation or a free time' (M732). For some instructors, it is either face-to-face education or no education, putting forth the argument that the contract

between them and their institution entails merely face-to-face education. The sixth is the potential to fall behind. There are individuals, such as the elderly in remote villages, that 'have not heard, nor will they even hear, about coronavirus, not to mention distance education' (I55).

• Culture (Micro Vision)

This micro vision includes two main marks: gender and children. Under **Mark 1** (gender) are a couple of points. The first is confidence. Some female students highlighted that CDE has allowed them to participate more freely in classes through the writing feature of online communication, making them less shy and less nervous. The second is a lowered sense of tiredness. Some female students reported particularly feeling pleased that they can now learn without the need to leave the house, thereby sparing the time spent on 'wearing clothes and make-up, driving or waiting for the driver and other things that are tiring for us' (M1301).

The third is the desire to leave the house. Distance education is not new to some Arab women; it is rather the norm in some Arab regions. In some Arab educational foundations, men can only teach women online, with men at the male-only campus and women at the female-only campus. In this respect, women can see and hear men, and yet, men can only hear women owing to the belief that the female face is private. For these women, what makes conventional distance education different from this version of distance education is simply that, in the former, they are located at the female-only campus and access male-taught education through the Internet while accessing female-taught education face-to-face on campus. Now, these women are located at home and access both male- and female-taught education through the Internet. Hence, some of these women preferred the conventional mode of distance education whereby they at least have the chance to leave home and go to campus. They shared tremendous enthusiasm for the act of leaving the house and going to campus, perceiving it as a 'big outlet for women' (I21), given the limited mobility and movement of women in some Arab realms. An alarmist view in the data is that some are pleased that, due to CDE, women are now back to their culturally 'rightful' place at home, implying that technology can be regarded as an instrument that facilitates further control of women.

Mark 2 (children) is extracted from several points. The first is parental involvement with children's education. Some participants praised CDE for 'making parents more involved with their children's education and with their life in general' (M666). Others protested against 'the increasing educational, parental gaze and control over their children' (M133) facilitated by the presence of both parents and children in the restricted space of the home for extended periods. Some students felt that, with CDE, they and their parents are permanently 'at school' (M877). That said, some households have many children, as is customary in some Arab societies, representing a considerable burden on families when it comes to CDE. That is, these families 'cannot supervise their children during distance education sessions when these sessions take place at the same time' (M37). The second point is distraction. An Arab house may consist of many children and host intergenerational family members, 'causing inconvenience, distraction and lack of focus when one of the children wants to interact with distance education from home' (M532).

The third point is the misuse of CDE. Some parents complained that their children abuse the time supposed to be spent on CDE. These children may waste this time on social networking websites as a consequence of inadequate parental supervision. Because some parents are technologically incompetent or even 'digitally illiterate' (M258), their children may easily deceive them, pretending that they are studying, but in fact, they are playing online. The fourth is the inability to provide a device for each child. Some parents cannot afford to 'buy computers or smart devices for each one of their children, even though distance education often requires a special device for each student separately' (M1204). Having shared computers 'promotes tension and interference

among members of the same family, especially when their online class is at the same time as other members' (M344). The fifth point is downloading. All of the children using the Internet to access CDE simultaneously slows downloading speeds, which is a hindrance to watching live classes. The sixth is the outsourcing of child supervision. Within some households, 'older siblings are asked by parents to supervise the distance education of their younger siblings' (I66).

3.2. Pedagogical and psychological ramifications (Meso Vision)

This meso vision consists of two micro visions: pedagogy and psychology.

• Pedagogy (Micro Vision)

The 'pedagogies' micro vision is made out of two marks: cognition and management. Under **Mark 1** (cognition) are several findings. The first is pressure. The sudden urgency for online education notwithstanding unreadiness has forced some managers and teachers to think outside the box. They have started to make-do, work within available resources and creatively consider pedagogical alternatives. The second is limited cognitive activities. Non-pedagogical activities (such as seminars, symposia and local and worldwide conferences) have been cancelled at some institutions. This cancellation encouraged some participants to wonder why these activities 'have not been carried on remotely as well, just like what has happened to pedagogical activities' (M344). Moreover, academic ceremonial activities, such as graduation, have been postponed.

The third finding is the loss of educational values. There is some indication that the essence of education has been jeopardised and compromised to a large extent, owing to the short-notice transition to CDE. Because of this suddenness, education in some organisations has turned out to be merely a matter of recording (and, at times, discussing) lectures and submitting assignments and homework through an online system. This 'cannot be called a real transfer to distance education' (I44) as it does not rise to the standards of distance education. It should be, instead, called 'emergency remote teaching', i.e. 'a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances' [51].

The fourth is a lack of training. Staff have been dragged into CDE with no pre- and in-service training. Hence, it is sensible to propose 'the inclusion of a course on distance education as part of teachers' education and in-service training' (I82). The fifth is a lack of focus. There were observations of growing 'anxiety and panic owing to the deep fear of the virus, which has affected learners' ability (especially pupils) to focus and learn, whether at school or home' (M892). The sixth finding is dependent learners. CDE relies primarily on the notion of self-learning [36]. This notion is, however, not an integral part of Arab education and Arab culture. Hence, 'we have now forced students into self-learning, yet we have not prepared them throughout their education for self-learning' (I102).

Various observations fall under **Mark 2** (management). The first is imbalanced student-teacher power relations. One interviewee remarked that students' readiness for Internet-based education is likely to be much greater than that of teachers, yet 'teachers are the master of the class at the end of the day' (I101). The second is imbalanced parent-teacher power relations. CDE has turned homes into schools and parents into teachers, making some school workers worry about losing their jobs. Schoolteachers now possess the least effort, and the greater effort has been placed upon parents at home. However, challenges occur when 'the mother is a teacher teaching other children on the Internet while supervising the education of her own children at the same time' (M153). The challenge accelerates 'when parents teach their children but they themselves are not qualified or hardly educated' (M980). Many parents have found it difficult to take on the role of teachers by educating their children. This feeling of hardship on the part of parents has pleased some

teachers, who think that this feeling will make parents appreciate the role of teachers in parents' lives.

The third observation is traditionality. In CDE, some educational institutions insist on taking attendance and forcing students to wear school uniforms in front of the screen during virtual classes. The fourth is bureaucratisation. CDE has been exploited by the classical mentality of some education authorities to increase the rate of bureaucratic work. That is, in some organisations, the teaching staff are required to fill in several forms on an almost daily basis wherein they report on their experience with virtual instruction. This increase in bureaucracy is contrary to what is theoretically expected as technology is supposed to 'be introduced to rationalise and, therefore, reduce, not increase, bureaucratic actions' (I77). The large quantity of bureaucracy-related correspondence and the inflow of unnecessary instructions have reportedly confused some educators and taken them away from pedagogical preparation.

• Psychology (Micro Vision)

The 'psychology' micro vision is assembled from two marks: ethics and wellness. Under **Mark 1** (ethics) are different highlights. The first is deception. Some critics contend that the enactment of CDE in the private sector has been undertaken to deceive students and parents. That is, some private schools have made parents think that the school is still operating during the predicament (despite the poor performance quality), giving a false impression that their tuition fees are not going to waste. However, some private schools have taken fair measures, refunding a portion of tuition fees on the grounds that their payment was supposed to go to face-to-face education, not to a distance one.

The second is charity. Some philanthropists (called 'good people' in Arabia) have made donations to supply those in need with digital equipment for CDE. The facilitation of CDE is being regarded as 'the best charity one can provide in the current situation' (M573). Some telecom companies have taken the charitable initiative to offer free access to certain educational sites and channels. The third highlight is the demand for free equipment. Some people debate whether, in free-education countries, 'citizens should have the civil right to be granted reduced-price meals, free digital devices and free access to the Internet' (M429) since distance education has become compulsory.

The fourth is epistemological restrictions. Some have protested the closure of libraries, which limits their ability to access knowledge and do well on their assignments, dissertations and theses. The fifth is closed businesses. One interviewee made the case that beggars and muggers must find this time unpleasant since streets are deserted as the public stays home as a result of the national implementation of distance education and other curfew-specific measures.

Mark 2 (wellness) is a basket of topics. The first is disrupted routines. In general, a manifestation of the ongoing calamity is the presence of general confusion in humans' lives due to the disruption of daily routine, bringing about 'psychological and social issues' (M119). This calamity has turned a large population into isolated and displaced students at home. The second is the requirement to stay home. CDE, along with the imposed curfew in some Arab districts, has forced people to stay at home for an extended period, thus encouraging them to 'stay up late, sleep during the daylight, sleep longer hours and eat extensively while not exercising' (M662). Stay-home entails various problems that may prevent students and teachers from learning and teaching, such as pandemic-related stress, anxiety, depression, domestic violence and divorce. This is in addition to a remarkable increase in the pregnancy rate, leading to a generation of post-coronavirus 'baby boomers'. Longer stay-home orders may have weakened individuals' skills, such as speaking and impersonal communication.

The third is daycare. The presence of small children at home throughout the day was noted by some parents as problematic. These parents used to leave their children in school or daycare centres and then go to work. Now, with CDE, students must stay home, meaning that

parents must stay home to take care of them. This is, however, not a problem for many Arab families, who have either maids or relatives to look after their children during their absence.

The fourth is the parents' abilities to save time and money. CDE has lowered parents' responsibilities to provide their children with daily school expenses and transportation to and from school. It has liberated families from 'the daily task of having to wake up their children early in the morning' (M339). The fifth is the authorities' abilities to save time and capital. The fact that students do not come to school has assisted schools' management with efficiency, saving the costs of electricity, water, maintenance, buses, paper and pens. Expressed differently, the economic costs that are normally undertaken by schools are now placed on families. Moreover, the introduction of CDE has eased traffic congestion on streets in the usual times of going to and from school, reducing pressure on traffic security.

3.3. Procedural and logistical ramifications (Meso Vision)

This meso vision is the result of two micro visions: procedures and logistics.

• Procedures (Micro Vision)

The 'procedures' micro vision includes two marks: quality and preparedness. Under the umbrella of **Mark 1** (quality) are a few matters. The first is distance education recognition. The pressures from the global community and health authorities have forced decision-makers in some Arab countries to tolerate and fund distance education despite their longstanding resistance to it. The second is distance education improvement. A generous financial allocation has been granted by some governments to support distance education. This funding will 'undoubtedly contribute to the swift advancement of distance education in terms of technologies, techniques, theories and methodologies' (I39). Now, the collective mind of the world is critiquing and reflecting upon online education, which some interviewees expected to assist with this advancement. In short, the current period is considered a 'historic turning point' (I66) and 'a peak period' (M482) for the development of distance education. That said, some institutions have undertaken distance education with limited investment in establishing online infrastructure and structure, resulting in poor education quality.

The third is grading. Policy-makers, managers, instructors and students have no clear conceptualisation of how final examinations should be performed in CDE. Some recommended that final examinations should be undertaken face-to-face, but examinees should be seated 1 m apart from each other. Others called for 'distance examination' (M833). Some suggested discarding the coronavirus-affected semester, making it 'the lost semester' (M111). Others went further and cried out for the elimination of distance education and the provision of an automatic 'A' for all students [53]. Another suggestion is the simplification of the grading system by granting everyone either a pass or fail status. Another proposal is transferring students' grades from the previous semester to the ongoing semester, meaning that students have the same grades as the previous semester without undertaking any examinations. The latter proposal is impractical if 'the virus-based disruptions – like school closings – continue beyond the current semester' (M998). It is obvious from the CDE class observations that the lack of a clear vision of exam mechanisms is a concern – truly, the main concern – among many students, 'especially those students who are getting ready for A-level examinations' (I121).

As for **Mark 2** (preparedness), there are a couple of aspects. The first is school readiness. It will be deemed worthwhile if there is further evidence that, overall, universities have a better readiness for the use of CDE than schools. Many academic institutions have deanships for distance education, offer online degrees and have an ingrained technological infrastructure, easing the implementation of CDE. The second is Arabs' readiness. Many have subscribed to the belief that 'Arab

countries, especially Gulf countries, have proved to be technologically readier than many non-Arab countries in terms of the sudden embodiment of distance education as a response to crises' (I121). This is partly because 'Arabs tend to be good consumers of digital services and comfortable with digital technology' (I30). Also, 'technology is well sponsored and well established in the various sectors of some Arab countries, especially the higher education sector' (I19). This is perhaps because some Arab nations were relatively poor, and when they became rich, they skipped the early stages of technological development and imported the latest technologies.

The third is emergency plans. The coronavirus shutdown has revealed how unprepared the school sector is when it comes to 'emergency education' (M1139). Readiness for CDE should, as advocated by one interviewee, become one of quality assurance requirements for schools. Some tweets contended that every school should acquire an operation plan, guidance and toolkit for 'distance educational management' (M915) and for school closure and recovery. Another interviewee questioned such a suggestion, asking, 'Why have a back-up plan that costs a lot of money although the need for such a plan comes only once every 100 years?' (I66). That interviewee believed that 'the act of stopping education for a semester or even for a whole year would be less expensive than that of having an alternative plan' (I67). The fourth is insurance. Some suggested the foundation of a 'disaster insurance' (M229) for schools.

• Logistics (Micro Vision)

This micro vision covers two marks: exploitation and trendiness. Under **Mark 1** (exploitation) lies a variety of subjects. The first is companies profiting. The status quo underpins the Arab belief that 'some people's disasters are others' benefits' (M711). That is, technology companies are benefiting from the global need for distance education, intensifying marketing and making special offers to maximise sales. Another beneficiary is telecommunications companies, in the wake of the considerable demand for the Internet as a tool for CDE. The second is experts profiting. Some individuals with expertise in the field of technology in society have found the hyperactive social integration of CDE to be an appropriate chance to publicise themselves, offer paid consultation and exploit the funding for CDE.

The third is non-experts profiting. Some interviewees pointed out that individuals with no expertise in the field of technology in society have claimed expertise in order to profit. In line with the sudden embracement of Internet-based education, there has been an influx of experts in the field of technology in society; 'overnight, everyone has become a trainer of distance education, taking advantage of the funds and opportunities surrounding the sudden transformation of distance education' (M78). The fourth is schools profiting. It is worth noting that some schools have found the current situation to be an appropriate time to undertake maintenance projects, starting now what is supposed to be done during summer vacation.

The fifth is students and teachers profiting. The educational system and its organisational procedures are normally characterised as solid and resistant to structural change. However, the coronavirus outbreak has forced this system to rethink many of its organisational configurations. One change is allowing students and staff to attend school virtually from home. The sixth is hackers profiting. Some hackers have attempted to seize this opportunity, taking advantage of the masses' limited knowledge about CDE and tricking them into sharing their private information.

Multiple cases live under the roof of **Mark 2** (trendiness). The first is fashion. The employment of CDE may have been undertaken by some Arab countries to prove their ability to adhere to universal trends and global fashions. It may have been embraced by these countries to look 'cool, modern and technologically advanced' (M1377). The second case is pride. Some Arab nations' incorporation of CDE has been a source of nationalistic pride for some citizens, who acclaim the readiness of their

countries to go online. Such pride may be 'a false illusion that does not reflect reality' (M383). These countries close their eyes to the issue that undertaking CDE without being ready can 'trigger an educational disaster' (M811), 'mess up students' educational performance' (M39) and 'provide parents with a negative first impression about the effectiveness of distance education' (M119).

The third case is the one-size-fits-all modelling. Because CDE is now an inclusive phenomenon, all students are pushed into this kind of education irrespective of their education level, bodily capabilities and cognitive abilities. By the agency of such unfair inclusivity, orphans, low-income people, residents of villages and remote deserts and those with special needs (viz. the deaf and blind) are facing real difficulties in achieving 'the fruits of distance education' (M1338). Also, due to their young age, primary-school pupils are finding it difficult to stay focused and 'to deal with distance education or even to understand what distance education means' (M771). Those with such difficulties must put up with CDE for fear of punishment; however, some of them have made a minimal commitment.

4. Concluding remarks

This article has built a conceptual framework for distance education during times of catastrophe, with a concentration on the Arab domain. This framework is summarised and illustrated in Fig. 2. Through this work, a variety of contributions have been made to the field of technology in society. First, it has followed Wiener's [54] and Bijker's and Law's [55] ways of thinking to distinguish pandemic-related from traditional distance education, demonstrating the political roles of technology and society in determining one another. Second, it has depended on empirically collected input from both affecting and affected individuals to frame the dialectical relationship between society and technology in a time of crisis [56,57]. The third is the problematisation of pandemic-driven distance education, pointing out the social shaping of technology and the technological shaping of society [58,59]. Fourth, echoing the methodological parameters of Willis [60]; it has exposed this education to qualitative enquiry, delving into the political dynamics between technology and society. For Teti et al. [50]; 'qualitative inquiries are our best method for capturing social responses to this pandemic' (p. 1). Fifth, concurring with the advice of Gunderson [61] and Williams and Edge [62]; it has examined this education from non-educational perspectives (i.e. cultural and social perspectives). Last, it has sought to offer the international academic community a window into how Arab societies influence and are influenced by technology [63, 64].

As a primary preventive response to the coronavirus outbreak, Arab countries have implemented distance education in lieu of in-person education. This initiative has been followed by similar initiatives (such as distance work and distance purchase) that boost social distancing to reach the highest degree of caution. The question is whether the deeply rooted Arab value of social closeness has pushed back and refused these distancing schemes. This value can be seen in Arabs' appreciation of such practices as handshaking, cheek-cheek kissing, nose-nose kissing, friendly hand-holding, sociable hugging, family events, fraternal visits, social feasts and other aspects of societal closeness. Notwithstanding this value, the virus has managed to almost effortlessly defeat Arab culture overnight, emptying streets, squares, parks, beaches, airports, taxis, venues, shops, cafés, theatres, shisha places, public restrooms, tourist attractions, mosques and even holy mosques. National celebrations (viz. Eids) and funerals have, moreover, become performed from a distance, whereby wishes and condolences are shared via technology.

Arabs have begun to advise each other to conform to distancing initiatives for the safety of all. They have started to think collectively about how to maximise distancing. This infers that Arabs have united to disunite and have bound to unbind, thus forming an unorthodox societal concept: 'distanceship'. This concept intimates that 'divided we fight,

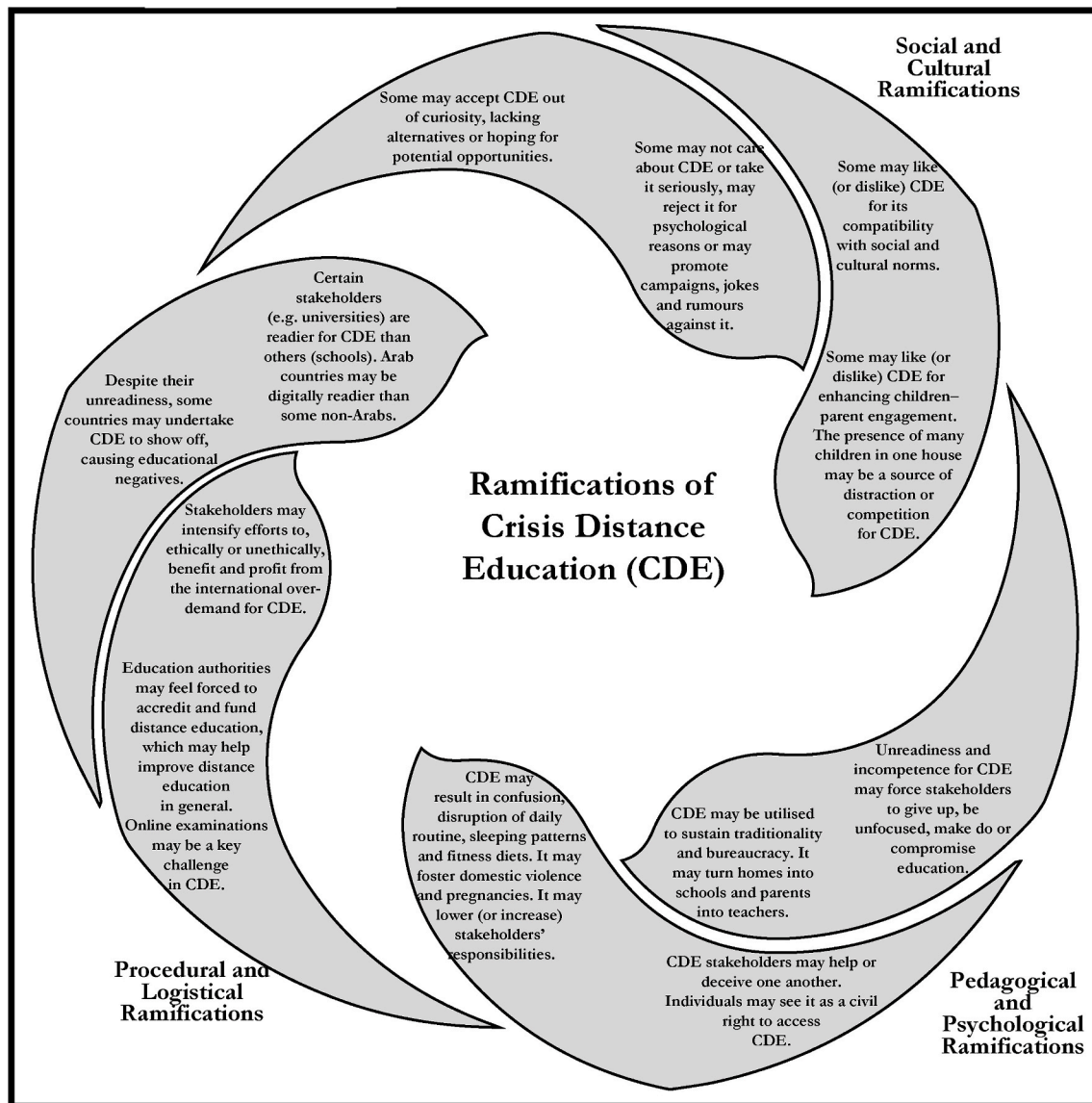


Fig. 2. Conceptual framework for crisis-driven distance education.

united we stand' (from Andrà Tutto Bene's song *Cristóvam*). It manifests itself 'when distance means love that keeps us alive' (ibid.) Distanceship has become more applicable in the contemporary era by virtue of three factors. The first is technological advancement, enabling a substantial amount of distance communication. The second factor is the increasing strength of individualism, whereby one maintains distance from others. The last and most relevant factor is the social interest in addressing closeness-associated problems (here, the virus).

The panic across the globe and fear of the unknown (in this case, a virus) have encouraged Arabs to welcome distanceship. Many Arabs have engaged in a defensive position against one another for fear of infection. One well-retweeted post states, 'When the epidemic spreads, make sure to treat others as if they are infected and to deal with the uninfected as if you are infected'. It remains unknown how far the degree of distanceship will go. Perhaps this exceptional epidemic may accelerate the influence of distanceship over Arab mindsets. A commonly retweeted post is that the Arab domain before coronavirus 'will change and be different from the one after coronavirus'. Will the Arab norm of social closeness be a party to this change?

Data availability statement

Data will not be available, because they are confidential.

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